AN ARAMAIC INSCRIPTION FROM BENEATH WILSON'S ARCH[1]

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INTRODUCTION

The excavations under Wilson's Arch, at the foot of the Temple Mount's Western Wall (Fig. 1), yielded monumental architectural remains spanning the first century BCE to the late Islamic period. Alongside the significant architectural remains, many small finds were discovered within the fills beneath the arch, reflecting cultural traits of a wide time span. Among these finds is a fourth–third-century BCE administrative Aramaic inscription, incised in mirror writing on a potsherd. This inscription is of great importance as it contributes to our understanding of the development of language and writing in Jerusalem in that period, also reflecting on the scribe's origin.

The Archaeological Setting
Wilson's Arch is the easternmost in a series of arches that supported the bridge that crossed the Tyropoeon Valley from west to east, leading from the Western Hill (the Upper City of Jerusalem) to the Temple Mount. The arch, 15 m wide and with a 13 m span, forms a c. 200 sq m vaulted space (Uziel, Lieberman and Solomon 2019).

Between 2015 and 2018, excavations in the area under the arch revealed a stratigraphic sequence of eight strata spanning the first century BCE until the Late Islamic period (for a detailed description of the excavation results, see Uziel, Lieberman and Solomon 2019).[2] The excavations unearthed the remains of the pier of the arch and courses of the Western Wall, both dating from the Early Roman period, and a theater-like structure, probably an *odeon* or a *bouleuterion*, situated under the arch (Plan 1; for further discussion of the
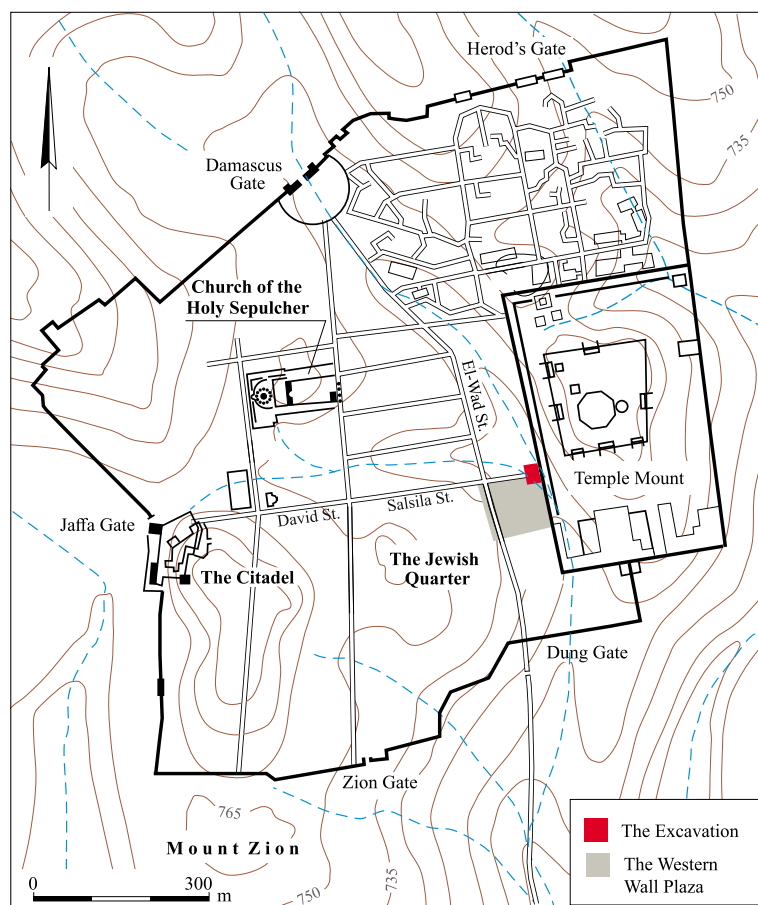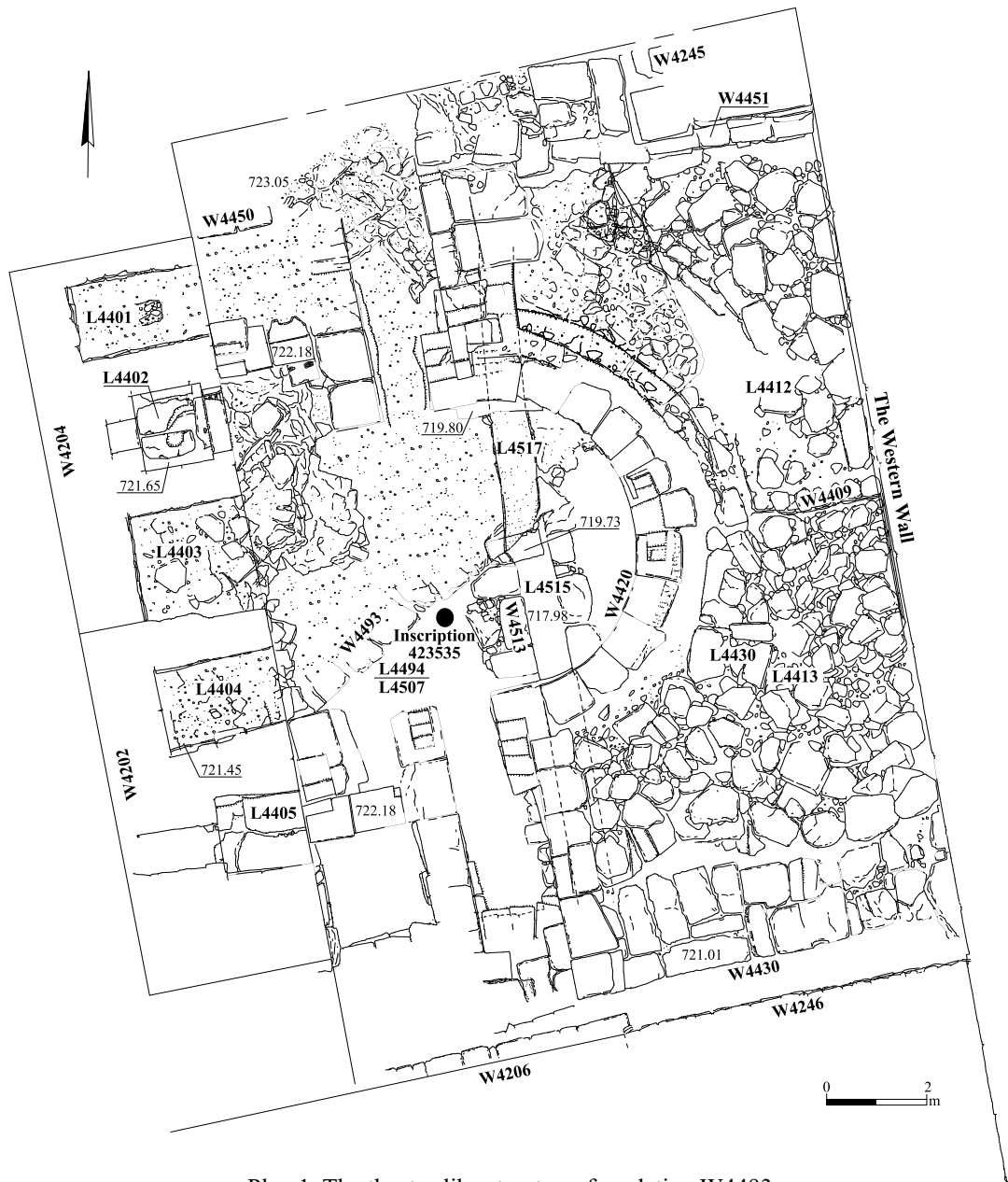

Fig. 1. Location map.

building's function, see Uziel, Lieberman and Solomon 2019). Based on the stratigraphic, architectural and ceramic evidence, the construction of this theater-like structure can be securely placed within the late first–early second century CE. The entire building was found sealed with a deliberate, homogeneous fill dated by ceramic evidence (Uziel, Lieberman and Solomon 2019; Lieberman, Solomon and Uziel 2019) and radiocarbon dates (Regev et al. 2020) to the third century CE.

Beneath the above-mentioned architectural structures was exposed a broad foundation wall (W4493) dated to the first century BCE (Regev et al. 2020). A thin fill (L4494) abutting W4493 on the south sealed a layer of small fieldstones (L4507), which in turn abutted the eastern wall (W4513) of a stone-built drainage channel (L4515), also sealed by Fill 4494. The fill contained mixed finds, including pottery dating from Iron Age II–III, the Early Roman period and the second–third centuries CE. Among the finds was the body sherd (7 × 6 cm) of a storage jar that could not be dated, bearing an Aramaic inscription (Fig. 2).

Plan 1. The theater-like structure, foundation W4493,
and the location of Fill 4494, where the inscription was discovered.

The upper part of the sherd, broken in a smooth, horizontal manner, served as a guide for writing in straight lines. The petrographic analysis of the fragment revealed that the raw material used in its production is characterized by optically active clay, somewhat calcareous, with iron oxides and <2% silt-sized quartz grains. Abundant (~30%) sand-sized non-plastic components of rhombohedral dolomite crystals appear in the paste (Fig. 3). This raw material is identified as the clay unit of the Moẓa Formation and the dolomitic
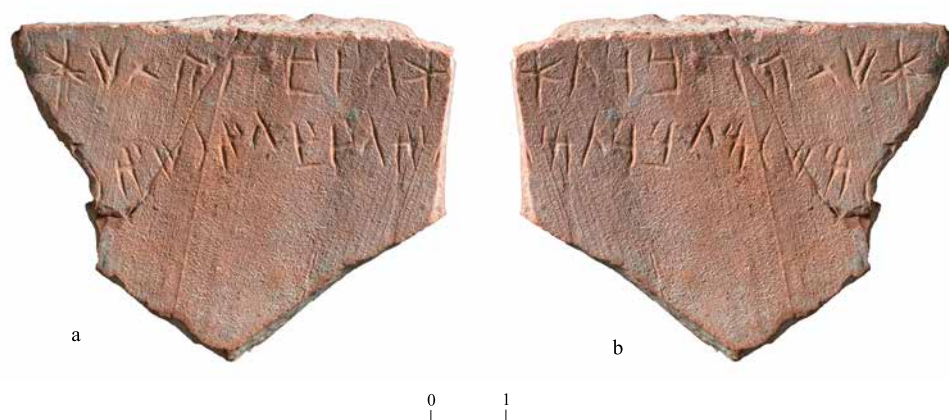
Fig. 2. The inscription: (a) original; (b) horizontally flipped.

Fig. 3. Photomicrograph (xpl) of dolomite crystals of the
'Aminadav Formation embedded in Moẓa clay.

sand from the overlying 'Aminadav Formation, both of which crop out along the western flank of the north–northeast trending Hebron and Ramallah anticlines (Arkin et al. 1976; Sneh and Avni 2011). This raw material has been observed and described in several pottery assemblages from different periods, scattered around the Judean-Samarian Mountains (e.g., Goren, Finkelstein and Na'aman 2004:263). The petrographic results, coupled with the findspot in the city of Jerusalem, indicate that the jar was probably produced in Jerusalem or in its close vicinity.

The Inscription

The inscription (Fig. 2) was incised on the sherd after firing. The letters are small (c. 0.5 cm) and written from left to right in mirror writing (see *Discussion*, below). Two lines of the inscription survived, including two complete names; given its partial preservation, it may have included more names (see *Reading of the Inscription*, below):

1 [...]]לᵒאשיהו בר תא[...] or [...]]לᵒאשיהו ברת א[...]

2 [...]למשלמת ברת מᵒ[...]

A short diagonal incision marked down from left to right, starting at the edge of the sherd and touching the upper part of the ו on the upper line may be the lower part of a long letter descending from a missing, upper line. However, since the spacing between lines 1 and 2 is wide (c. 1 cm), and we cannot suggest any possible long letter compatible with the direction of the line, the short diagonal incision was probably not part of a letter, indicating the lack of an additional line above the preserved part of the inscription.

No right or left margins remained, and some broken letters can be seen on the left edge of lines 1 and 2 and the right edge of line 2. Below line 2, the rather wide blank margin shows this is the last line of the inscription.

Only three complete and three partially preserved words of this small inscription survived. The word ברת (daughter) clearly indicates that the language of the inscription is Aramaic, written in lapidary script. As the inscribed body sherd cannot be dated based on its findspot, nor on typological considerations, the inscription's date will be determined based on the following paleographic study.

The Aramaic Lapidary Script

The term "Lapidary Script," initially pertaining to stone inscriptions used for official purposes, was later also used to describe inscriptions made on non-lapidary material (Eshel, forthcoming; see below). This script was common during the Persian and Hellenistic periods, from Asia Minor and Egypt to Afghanistan.

In his pioneer study, titled *The Development of the Aramaic Script*, Naveh (1970:4) noted that:

> The process of development was evolutionary. A new form would first appear sporadically in
> the writing of a few individuals, usually alongside the older form. Even after the new form
> had become thoroughly entrenched, the older one remained in use for several decades … Not
> all letters followed parallel paths of development … There were also parallel developments
> among groups of letters …

Naveh's primary concern was to establish the dates of the various Aramaic inscriptions, and he did so based on paleographic considerations. We believe, however, that the archaeological and textual context are crucial for understanding the multi-faceted writing process, affecting the inscriptions' deciphering and dating. The Wilson's Arch inscription conforms to Naveh's (1970:4) notion of "a new form … alongside the older form," as it was

written in a special type of Aramaic lapidary script, which preserves the older forms of the letters *alef*, *zayin* and *yod*.

Lemaire (2014:235, 237), based on his studies of post-Iron Age Aramaic inscriptions and ostraca, suggested to distinguish between two periods: the Neo-Babylonian (c. 587–539 BCE) and the Persian and Hellenistic (c. 539–305 BCE). Lemaire updated Naveh's list, adding several long and short Aramaic inscriptions—on seals, sherds, bricks, dockets and cuneiform tablets.[3] Lemaire also presents a table with the script used in these inscriptions (2014:242–243, Figs. 2, 3) and a detailed description of each letter and its development (2014:241, 244). He notes that "In addition, more-or-less formal style may be contemporary, so the paleographical dating of most of these inscriptions remains approximate" (2014:239).

The excavations on Mount Gerizim, to the south of Shekhem, "brought to light some four hundred inscription fragments in Neo-Hebrew and Aramaic (Lapidary and Proto-Jewish) scripts, inscribed on building and paving stones, that were found inside the city's Hellenistic periods sacred precinct ..." (Magen 2008; Magen, Misgav and Tsfania 2004:13). Of the 381 Aramaic inscriptions, 56 were written in Aramaic lapidary script. The inscriptions were first published by Naveh and Magen (1997), and later by Misgav (Magen, Misgav and Tsfania 2004), who further divided the corpus into two subgroups based on the use of two distinct formulae: (1) *that which offered*; and (2) *for good remembrance*. To these, some "Miscellaneous" inscriptions were added, as well as a short discussion of the Aramaic lapidary script (Magen, Misgav and Tsfania 2004:13–41, esp. pp. 36–41).

As they were not found *in situ*, the inscriptions were broadly dated to the Hellenistic period (third–second centuries BCE), as noted by Misgav: "The extant parallels to these inscriptions have not enabled us to fix the chronology of the lapidary style" (Magen, Misgav and Tsfania 2004:37). Misgav also observed that "the Mt Gerizim inscriptions in the lapidary style do not differ from similar inscriptions dating from the Persian and early Hellenistic period uncovered elsewhere."

In addition to the known distinctive features of this script, including the 'old form' of the letters *alef*, *zayin* and *yod*, Misgav noted that "the other letters are cursive, although they, too, exhibit some conservative features," and that "all the inscriptions date from the Hellenistic period (third–second centuries BCE), a time in which, with a few exceptions, the lapidary style is not known to have been in use" (Magen, Misgav and Tsfania 2004:37).

Eight years later, in 2012, the Mount Gerizim corpus received new attention by Dušek (2012), including the lapidary inscriptions. He argued that the "lapidary script" of the Mt. Gerizim corpus should be defined as "Monumental Script" in comparison to other such inscriptions. Based on his detailed study of the inscriptions, and taking into account their historical background, Dušek suggested that the Aramaic monumental script should be

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[3] To these should be added the funerary stele from Saqqara, dated to the fifth century BCE (Lozachmeur and Dobrev 2008).

dated to the Hellenistic period, summarizing that: "More generally, we propose dating the inscriptions to the time of Antiochus III (223–187 BCE) and to the period after his death… it seems probable to consider the terminus post quem the Seleucid conquest of Palestine during the 5th Syriac war, in 200 BCE" (Dušek 2012:37). Accepting Naveh's definition, Dušek showed that the Aramaic monumental script style is characterized by the independent lapidary, older form of *alef*, *zayin* and *yod*. He admitted that dating the Aramaic monumental script is more difficult than dating the cursive script and that "the monumental style archaizes and its development is slower than cursive" (Dušek 2012:37).

The examples discussed by Dušek stress that the dating suggested by scholars for the major Aramaic lapidary inscriptions span a long period (Dušek 2012:29–33). Thus, only future finds with clear dates will enable the establishment of a firm chronology and dating for the Aramaic lapidary inscriptions.

Description of the Letters

Aleph (א). This letter is written in the independent lapidary form, which according to Naveh, "preserves the initial form in the development of the Aramaic cursive: one of the bars forming the angle has moved to the right, joining the other generally at the junction with the downstroke" (Naveh 1970:53), also called "very archaic forms, such as the classical *alef*" (Naveh 1970:54). In Wilson's Arch inscription, the two א signs in Line 1 differ slightly. The first א is written so that the upper bar joins the other at the junction with the downstroke. Another bar, more or less parallel to the lower bar, also ends at the downstroke. To the left of the downstroke, two bars seem to continue the ones from the right, but a slight deviation indicates they were written separately. The א at the end of the line is also written so that the upper bar joins the other at the junction with the downstroke; to the left, another bar is written to continue the lower bar, though not precisely, so it might have been added separately.

The upper line extends downward from right to left, and the lower line continues upward with two partly parallel lines, the upper of which continues until it meets the vertical line and is then crossed by the latter.

These two א signs have no exact parallel in the Aramaic lapidary script, although they resemble those of Mount Gerizim (Dušek 2012:26; 31, Fig. 5) and the inscription from Bahadrili (Dupont-Sommer 1961:20). This difference may be due to a different and distinct letter shape, a development, or the result of an inexperienced scribe.

Bet (ב). The letter comprises a vertical serif which joins a wide horizontal "roof." The downstroke descends vertically, starting above the "roof" and meeting the base, which is not long and not straight, slightly rising to the left. Other lines are straight, meeting at 90-degree angles.

Heh (ה). A narrow form of the letter, where the "roof" is a short horizontal stroke. The two downstrokes are almost vertical and parallel.

Vav (ו). A long angular head and a vertical downstroke.

Yod (י). An early type of the Aramaic letter, comprising two strokes. The upper right one slants down to the right, while the lower left one, is almost horizontal (Yardeni 2000:186, Type 1).

Lamed (ל). This letter was only partially preserved at the beginning of Line 2. It seems to be of an early type (Yardeni Type 5), without a "tail," dated up to the end of the fourth century BCE.

Mem (מ). The letter appears twice in Line 2, beginning with a serif and a horizontal "roof" with a vertical right leg above the "roof" (especially the second sign, where it is a bit longer than the left vertical leg, attested in the cursive inscription; Dušek 2012:28). It resembles Yardeni's Type 5 (2000:192–193), which does not curve left at the bottom. It is dated until the late fifth–early fourth century BCE.

Resh (ר). Identical to the letter ד, it is typical of the Aramaic lapidary script (Dušek 2012:28).

Shin (ש). A relatively narrow form. A straight right "arm" slants down to the left, toward the bottom of the left downstroke, and a straight middle stroke slants down to the left, toward the center of the left stroke (Yardeni 2000:208, Type 1a).

Tav (ת). The letter appears twice in Line 2. It is different from the regular shape in the Aramaic monumental script, as it comprises two lines: a right, slightly curved one, and a left downstroke, which is slightly longer than the right one in the first occurrence and even longer in the second.

Based on paleographic considerations, three parallels were found:
1. A now-lost inscription on a tombstone from South Saqqara, reading לתאשר, "belonging to Teshur" (*TAD* IV:260; D 21:3). The letters ר, ל and ת are very similar to those in the Warren's Arch inscription. Unfortunately, this inscription is not dated, although Fitzmyer and Kaufman (1992:129) suggested a mid-fifth-century BCE date.
2. The Aramaic inscription on the boundary stone from Bahadirli, dated to the fifth or fourth centuries BCE (Dupont-Sommer 1961). Written in Aramaic lapidary script, some of the letter forms are similar to those discussed above, especially ו, ב, א and ד.
3. An as of yet unpublished inscription, written on the shoulder of a storage jar, can be tentatively dated based on its script to the fourth century BCE. Unfortunately, since the

jar's neck and rim (the indicative features) are missing, the fragment cannot be dated by comparing it to parallels from dated contexts.[4]

Reading of the Inscription

The inscription reads:

1 [...] [...]לאשיהו בר תא[...] or [...] לאשיהו ברת א[...]
2 [...]למשלמת ברת מ[...]

Translation:
1 […] to/for [Y]'ŠYHW (=Josiah) son of T'[…]
Or: daughter of '[…]
2 […] to/for MŠLMT daughter of M[…]

Line 1
To the right of the letter א in the name אשיהו[...], in its upper part are two small vertical broken lines that seem to be connected at their bottom. They do not seem to be part of the inscription. The sherd is broken before the *aleph*, where another letter might have been incised. Based on our reading, it may have been a *yod*, thus reading: לאשיהו. [י]אשיהו, Josiah, is the biblical name of the King of Judah (e.g., 1 Kings 13:2; 2 Kings 21:24); it is also written in short form, יאשיה (Zephaniah 6:10).[5]

There are two options for reading the rest of the line:
1. Based on the masculine name [י]אשיהו, we might read after it בר תא[...], "son of T…", בר תא[...] being the father of [י]אשיהו. The name may be completed in several ways: (a) The name תא[רע], biblical תַּאְרֵעַ, Ta'are'a (1 Chronicles 8:35), with the variant תַּחְרֵעַ, Taḥare'a (1 Chronicles 9:41), who was a Benjaminite, a descendant of King Saul, one of the great-grandsons of Jonathan;[6] (b) תא[שר], a man by this name, Teshur, is mentioned on a now lost tombstone from South Saqqara (TAD IV:260; D 21:3; see *Discussion*, below)—it may be connected to the tree named תְּאַשּׁוּר, usually translated as box-tree or a type of cedar; (c) one of the following Greek names: תא[ודוסיוס], תא[ודוטוס] or תא[ופילוס] (see Ilan 2002:285, 287).

2. Another possible reading is [...]לאשיהו ברת א[, which is supported by the proximity of the letters ר and ת, and the similar formula used in Line 2. However, the problem with this reading is that the preceding name, [י]אשיהו, is masculine. We may suggest reconstructing

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[4] The storage jar was confiscated from a circle of West Bank looters active in the area of the ancient Hellenistic city of Maresha. It was handed over to Amir Ganor, head of the IAA Unit of Prevention of Antiquities Looting, for further study. The results will be published by Amir Ganor, co-authored by Boaz Zissu and the first author of this paper (E.E.).

[5] For the latest study of the interchange of the ending יהו/יה in the Bible, see Golub 2017.

[6] No etymology is suggested, just a change of the gutturals א/ח.

a feminine name—the wife of Josiah—at the beginning of the line, and the daughter of another name, beginning with an א, for whom there are many candidates (as opposed to the rarity of names beginning with תא[...]). In ancient times, a woman was defined by her relationship with a male figure, either as wife or daughter. We could not find a combination of both, but it is nevertheless possible.

Line 2

The name משלמת is known from the Bible as the name of King Amon's mother: בַּת- מְשֻׁלֶּמֶת חָרוּץ מִן-יָטְבָה. This name is also mentioned in the Elephantine documents as a name of Jewish women, for example in a fragmentary letter, dated to the last quarter of the fifth century BCE, where it is rendered as part of a list of names of people greeted by the writer Hosea: שלום (ל) משלמת, "Greeting to Meshulemeth" (Porten and Yardeni 1986 = TAD I:40–41, A3.7:3). This name also appears in an account of the Jewish garrison who "gave silver to YHWH the God, each person silver [2] shekels", on June 1st, 400 BCE (TAD III:226–228; C3.15). It includes many names of men and women, among them four women that are named משלמת, including משל[מ]ת ברת גמר[י]ה בר מחסיה, "Meshull[em]eth daughter of Gemar[ia]h son of Mehaseiah" (Col. A:2), and משלמת ברת צפליא, "Meshullemeth daughter of Zepelia" (Col. A:96).

The name משלמת is mentioned twice on an ostracon with instructions regarding legumes and barley (TAD IV:168–169; D7.16:4–5), reading: אל תתכלי על משלמת ועל שמעיה ..., "Do not rely on Meshullemeth and on Shemaiah…", who is later being rebuked: הן משלמת לא יצפה לי אנתי מה תאמרן, "I Meshullemeth am not concerned about me, you, what will you say?!" (11.11–12).

At the end of this line is the formula "daughter of" and the first letter of a name beginning with the letter מ[...]◦. After the *mem*, only the beginning of another letter is visible, maybe a *tav*. If accepted, it might be reconstructed as a patronym's name, such as מתני (Nehemia 12:19); מתיה (5/6 Hev20 V:48); מתתא (XHev/Se 8a f1R:15); or מתנה (XHev/Se 30 f1R:9).

DISCUSSION AND CONCLUSIONS

Two names are mentioned in the Aramaic inscription from Wilson's Arch. The comparison of the inscription's surviving letters with those appearing in other ancient sources led to the reconstruction of the names of a man (although it may have belonged to a woman, as noted above) and a woman, and the names of their fathers, whose names did not fully survive. It is unknown what followed the names. Several options may be considered, such as the individuals' places of origin, numbers, or quantities. Both names are preceded by the preposition ל, 'to' or 'for,' thus defining them as recipients. Despite the fragmentary state of the inscription, the surviving text suggests that a woman named Meshulemet (and maybe another woman whose husband's name is Josiah) was financially active in the local trade or administration. This inscription would then be a contract, agreement, or a shipping certificate documenting one of Meshulemet's commercial or administrative communications. Based

on the dating of the name Meshulemet and the early shape of the *mem*, we suggest dating the inscription to the fourth century BCE.

Mirror Writing

Wilson's Arch inscription is written from left to right in mirror writing. To our knowledge, such writing is known chiefly from ancient stamped seals, where it serves technical purposes. In this case, however, the inscription was not stamped but incised with a very fine tool after the vessel was fired.

Several Hebrew or Aramaic inscriptions written from left to right, and a Greek inscription written from right to left, are known. The earliest text, which includes Paleo Hebrew and Cryptic letters, written from left to right, was found at Qumran, 4QZodiacal Physiognomy (4Q186), dated between c. 30 BCE and 20 CE (Cross 2003:8–9, Fig. 1.2, Line 5). This text was first published by Allegro (1968:88–91, Pl. XXXI), followed by a detailed study by Popović, who argued that it had been written from left to right ("inverted writing"), bringing forth "a sort of list or compendium of physiognomic and astrological content" (Popović 2007:226–228).

A later use of reverse writing was attested on three ossuaries from Jerusalem, two written in Hebrew/Aramaic and one in Greek, dated between the first century BCE and the first century CE: (1) שלום = מולש (*CIIP* I/1:197–198, No. 159); (2) a two-line inscription mentioning סמון = נומס, i.e., Simon, the Greek form of Shimʿon—this writing was "possibly for apotropaic reasons" (*CIIP* I/12010:267–268, No. 239); (3) a Greek inscription reading ΝΑΔΥΟΙ, Ἰουδαν, Ioudan (יודן)—a form of the name Judah, popular both in Greek and Hebrew, for which Cotton et al. (*CIIP* I/1:447–448, No. 426) noted that "the inscription is written in reverse, either in imitation of Semitic practice, or as apotropaic magic."

In his publication of eight Roman-period lamp inscriptions, Naveh noted that four were written in mirror writing (Naveh 1988).[7] While discussing this phenomenon, Naveh referred to it as *palindrome*, literally meaning running back again, and mentioned other examples of such writing on amulets, lamps and ossuaries, used mainly for magical purposes (Naveh 1988:40–43).

It should be noted, however, that in Wilson's Arch inscription not only the order of the letters was reversed, but also the letterforms, whereas most of the inscriptions mentioned above are only written in reverse order. Some exceptions, such as the Greek inscription mentioning ΝΑΔΥΟΙ (Ἰουδαν), are written in mirror writing, i.e., with the Greek letter Ν written as И. The only known parallels of mirror writing are found on three oil lamps: a Samaritan abecedary (Naveh 1988:39, No. 5, Pl. 9A, B); a Greek abecedary (Naveh 1988: No. 6, Pl. 9D); and a Syriac inscription (Naveh 1988: No. 8, Pl. 9F).

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[7] No. 2—Samaritan from the area of Beth Shean; No. 5—Samaritan from unknown provenance; 6—Greek, found near Yavneh, and No. 8—Early Islamic, written in Syro-Palestinian letters.

In contrast to the use of mirror writing for magical purposes, the inscription from Wilson's Arch appears to be administrative and not related to magic or rituals. Thus, a different reason should be sought for the mirror writing used in this inscription. One plausible explanation may be that the writer may have been accustomed to the left-to-right Greek writing. Such an early knowledge of Greek may be inferred from a contemporary, fourth-century BCE bilingual inscription from Telloh, written in Aramaic and Greek (Naveh 1970:53, No. 6; *CIS* II/1:77–79, No. 72). Some support for this explanation may also be found in the first century BCE–first century CE Greek ossuary inscription reading ΝΑΔΥΟΙ, Ἰουδαν, Ioudan, mentioned above. If we accept the editor's note that this is an "imitation of Semitic practice," then the reverse might be true in our case, i.e., the writer, accustomed to the left-to-right Greek writing, wrote the Aramaic inscription in this direction, possibly indicating that Greek was the standard writing language and the Aramaic was a one-time occurrence for this individual. While difficult to assert due to the lack of other parallels, this explanation seems more plausible than assuming intentional mirror writing for the case at hand. Interestingly, the sherd on which the inscription was incised was produced locally, so if the inscription was indeed the work of someone more familiar with Greek writing (and not Aramaic), it may be evidence of his arrival at Jerusalem a short time before.

Another explanation for such mirror writing may be neurological. Over the past century, neurological studies of this phenomenon found that mirror writing is nearly always carried out with the left hand, more easily undertaken by left-handed individuals. Also, a particularly high prevalence of left-handed mirror writing was noted among those whose native languages are written from right to left, such as Chinese, Japanese and Hebrew (Critchley 1928; Schott and Schott 2004). In children, left-handed mirror writing is usually associated with dyslexia or mental retardation, while in adults, this writing usually occurs as a result of focal diseases affecting the left hemisphere, particularly a stroke, which results in right hemiplegia and necessitates the use of the left hand. Mirror writing has also been associated with head injuries and various neurodegenerative processes, such as Parkinson's disease, dementia, brain concussion and essential tremor (Paradowski and Ginzburg 1971; Schott 2007). In some instances, natives of both a leftward written language, such as Hebrew, and a rightward written language, such as Latin, wrote Hebrew in mirror writing following an injury, yet continued to write in Latin (Streifler and Hofman 1976). Despite the many circumstances in which mirror writing occurs, it is nearly always carried out with the left hand.

In the Wilson's Arch inscription, there seems to be no functional or magical purpose for mirror writing. Therefore, it is possible that the mirror writing reflects a cultural effect of the left-to-right written Greek, or that the scribe may have undergone a neurological circumstance, resulting in both a left-to-right writing (similar to Greek and possibly confused with it) and in reversed letters. Mirror writing reversing both the letter order and the letterforms is more frequent in languages such as Hebrew and Aramaic, and is usually performed by left-handed individuals. Therefore, it is possible that, in this case, the left-handed Aramaic native, suffering from a neurological condition, carried out fluent writing in mirror image.

References

Allegro J. 1968. *Qumrân Cave 4.I: 4Q158-4Q186* (DJD 5). Oxford.

Arkin Y., Braun M., Buchbinder B., Diamant E., Itzhaki Y., Lasman N., Rot I. and Shachani, E. 1976. *Jerusalem and Vicinity, Geological Map 1:50,000* (1997 edition). Jerusalem.

CIIP I/1: H.M. Cotton, L. Di Segni, W. Eck, B. Isaac, A. Kushnir-Stein, H. Misgav, J. Price, I. Roll and A. Yardeni eds. *Corpus Inscriptionum Iudaeae/Palaestinae* I/1: *Jerusalem 1–704.* Berlin–New York 2010.

CIS: Corpus Inscriptionum Semiticarum II/1, 1889.

Critchley M. 1928. *Mirror-Writing*. London.

Cross F.M. 2003. The Development of the Jewish Scripts. In F.M. Cross. *Leaves from an Epigrapher's Notebook: Collected Papers in Hebrew and West Semitic Palaeography and Epigraphy* (Harvard Semitic Studies 51). Winona Lake. Pp. 3–43.

Dupont-Sommer A. 1961. Une inscription araméenne inédite de Cilicie et la déesse Kubaba. *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettre* 105-1:19–23.

Dušek J. 2012. *Aramaic and Hebrew Inscriptions from Mt. Gerizim and Samaria between Antiochus III and Antiochus IV Epiphanes* (Culture and History of the Ancient Near East 54). Leiden.

Eshel E. Forthcoming. Combining Different Types of Scripts in the Aramaic Texts. In E. Eshel and M. Langlois eds. *The Scribe in the Biblical World* (OBO). Leuven.

Fitzmyer J.A. and Kaufman S.A. 1992. *An Aramaic Bibliography* I: *Old, Official, and Biblical Aramaic* (Publications of the Comprehensive Aramaic Lexicon Project). Baltimore–London.

Golub M.R. 2017. Interchanges between הי, והי and וי in Biblical Personal Names from the First Temple Period. *Journal of Northwest Semitic Languages* 43/2:1–6.

Goren Y., Finkelstein I. and Na'aman N. 2004. *Inscribed in Clay: Provenance Study of the Amarna Letters and Other Ancient Near Eastern Texts* (Tel Aviv University Institute of Archaeology Monograph Series 23). Tel Aviv.

Ilan T. 2002. *Lexicon of Jewish Names in Late Antiquity* I: *Palestine 330 BCE–200 CE* (Texts and Studies in Ancient Judaism 91). Tübingen.

Lemaire A. 2014. Scripts of Post-Iron Age Aramaic Inscriptions and Ostraca. In J.A. Hackett and W.E. Aufrecht eds. *"An Eye for Form": Epigraphic Essays in Honor of Frank Moore Cross.* Winona Lake. Pp. 235–252.

Lieberman T., Solomon A. and Uziel J. 2019. Rolling the Dice in Aelia Capitolina: On the Discovery of Gaming Pieces beneath Wilson's Arch and Their Function within a Theatre-Like Structure. *IEJ* 69:220–240.

Lozachmeur H. and Dobrev V. 2008. Nouvelle inscription funéraire araméenne à Saqqâra. *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 152-2:911–927.

Magen Y. 2008. *Mount Gerizim Excavations* II: *A Temple City* (JSP 8). Jerusalem.

Magen Y., Misgav H. and Tsfania L. 2004. *Mount Gerizim Excavations* 1: *The Aramaic, Hebrew and Samaritan Inscriptions* (JSP 2). Jerusalem.

Naveh J. 1970. *The Development of the Aramaic Script* (Proceedings of the Israel Academy of Sciences and Humanities 5/1). Jerusalem.

Naveh J. 1988. Lamp Inscriptions and Inverted Writing. *IEJ* 38:36–43.

Naveh J. and Magen Y. 1997. Aramaic and Hebrew Inscriptions of the Second-Century BCE at Mount Gerizim, *'Atiqot* 32:9*–17*.

Paradowski W. and Ginzburg M. 1971. Mirror Writing and Hemiplegia. *Percept Mot Skills* 32:617–618.

Popović M. 2007. *Reading the Human Body: Physiognomics and Astrology in the Dead Sea Scrolls and Hellenistic–Early Roman Period Judaism* (Studies on the Texts of the Desert of Judah 67). Leiden.

Regev J., Uziel J., Lieberman T., Solomon A., Gadot Y., Ben-Ami D., Regev L. and Boaretto E. 2020. Radiocarbon Dating and Microarchaeology Untangle the History of Jerusalem's Temple Mount: A View from Wilson's Arch. *Plos One* 15(6): e0233307. https://doi.org/10.1371/journal.pone.0233307.

Schott G.D. 2007. Mirror Writing: Neurological Reflections on an Unusual Phenomenon. *Journal of Neurology, Neurosurgery and Psychiatry* 78(1):5–13.

Schott G.D. and Schott J. M. 2004. Mirror Writing, Left-Handedness and Leftward Scripts. *Archives of Neurology* 61(12):1849–1851.

Sneh A. and Avni Y. 2011. *Geological Map of Israel 1:50,000. Sheet 11–II, Jerusalem*. Jerusalem.

Streifler M. and Hofman S. 1976. Sinistrad Mirror Writing and Reading after Brain Concussion in a Bi-Systematic (Oriento-Occidental) Polyglot. *Cortex* 12:356–364.

TAD: B. Porten and A. Yardeni. *Textbook of Aramaic Documents from Ancient Egypt* I–IV. Jerusalem 1986–1999.

Uziel J., Lieberman T. and Solomon A. 2019. The Excavations beneath Wilson's Arch: New Light on Roman Period Jerusalem. *Tel Aviv* 46:237–266.

Yardeni A. 2000. *Textbook of Aramaic, Hebrew and Nabataean Documentary Texts from the Judaean Desert and Related Material* 2. Jerusalem.